

REMARKS/ARGUMENTS

Claims 1-29 are pending in the application. Claims 1-6, 17, 27, and 29 were rejected and remain for consideration by the Examiner. The Applicant gratefully acknowledges the Examiner's allowance of claims 18-26, as well as the Examiner's position that claims 7-16 and 28 were objected to but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Paragraph [0027] of the specification is amended to correct a typographical error.

Claim 2 is amended to correct a typographical error, and Claims 2 and 4 are amended to overcome the Examiner's rejections as described below. Claim 7 is amended to include all the limitations of the base claim (claim 1), as well as claim 4 (in order to give antecedent basis to "the horizontal portions of the at least two lifting arms" in claim 7) and place objected-to claims 7-11 in condition for allowance. Claim 12 is amended to include all the limitations of the base claim (claim 1), and place objected-to claims 12-16 in condition for allowance. Claim 27 is amended to correct a typographical error and to overcome the Examiner's rejection as described below. Claim 28 is amended to include all the limitations of the base claim (claim 27), and place objected-to claim 28 in condition for allowance.

The Applicant hereby requests further examination and reconsideration of the application in view of the discussion below.

Claim Rejections – 35 USC § 102

1. Claims 1-4, 27, and 29 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,511,169 to Willis. Claim 1 and claims 2-4 that depend therefrom are directed to a lifting apparatus. Claim 27 is directed to a method of making a lifting apparatus, and claim 29 is for a method of lifting an article.

2. With respect to claim 1, the Applicant respectfully submits that this claim is not anticipated by Willis because Willis fails to disclose every recited element.

Claim 1 requires that a frame be disposable on an article to be lifted. The frame of Willis (collar 100), as identified by the Examiner, does not rest on the article to be lifted, and even if a different article than a drill pipe were to be lifted, the collar 100 would never contact the article to be lifted. The only parts to contact the article to be lifted in Willis are the plate assembly 120 including a plate 122 and cushioning layer 132 (see Willis FIG. 2 and col. 4 line 59 through col. 5 line 13), and the jaw inserts 74. Because the collar 100 of Willis is not disposable on an article to be lifted, Willis cannot anticipate claim 1.

In addition, claim 1 is not obvious in view of Willis for the reason discussed in paragraph 8 below with respect to the combination of Lighthipe Jr., et al. and Willis.

3. With respect to claim 2, claim 2 is amended to require that the lifting arms be in the retracted position in the absence of external force on the exertion member. Support for this amendment may be found in ¶ 30 of the specification. Downward force is necessary in Willis to place the jaws 70 in the retracted position (see downward arrow in FIG. 10). In addition, claim 2 depends from allowable claim 1, including all of the limitations therein, and is therefore also allowable.

4. With respect to claim 3, claim 3 depends from allowable claim 1, including all of the limitations therein, and is therefore also allowable.

5. With respect to claim 4, contrary to the Examiner's assertion that Willis has vertical portions of lifting arms that are outside of a frame, the jaws 70 of Willis pass through the collar 100. Willis states that "The collar 100 completely surrounds the jaws 70 and the cam body 50, as shown in FIG. 4." Col. 4, lines 33-34. Applicant's claim 4 requires that the vertical portions of the lifting arms be outside of the frame. For example, as shown in Applicant's FIG. 1, the vertical portions 58 of Applicant's lifting arms 50 are outside the limits of the frame 22.

In addition, the part identified by the Examiner as a vertical portion (jaw's beveled surface 80) and the part identified as a horizontal portion (shoulder 84) are not approximately vertical and approximately horizontal at the same time and at the various positions of the jaws 70. Claim 4 is amended to make this explicit, as supported by FIGS. 1 and 2.

Further, claim 4 depends from allowable claim 1, including all of the limitations therein, and is therefore also allowable.

6. With respect to claim 27, the frame (collar 100) of Willis is not disposable on an article. For the same reasons explained with respect to claim 1 in paragraph 2 above, claim 27 is not anticipated by Willis. Further, claim 27 is amended to require that the lifting arms be in the retracted position in the absence of external force on the exertion member, as previously set forth for amended claim 2 in paragraph 3 above.

With respect to claim 29, contrary to the Examiner's assertion, Willis does not disclose a first load bearing means mounted to the frame (collar 100). The Willis swivel

saver sub 20 identified by the Examiner is not mounted to the frame 100. Applicant's first load bearing means is for lifting the entire lifting apparatus by lifting the frame. Further, Applicant's second load bearing means is for applying force to the exertion member, which applies force to the upper ends of the lifting arms, and upon application of increased force lifts the lifting apparatus and the article. The second load bearing means that the Examiner identified in Willis, piston 124, is not the same as Applicant's second load bearing means, as it does not have force applied to it to lift the article.

Claim Rejections – 35 USC § 103

7. Claims 1, 5, 6, and 17 are rejected under 35 U.S.C. §103(a) as being anticipated by U.S. Patent No. 3,790,204 to Lighthipe, Jr., et al. ("Lighthipe") in view of Willis. All four claims are directed to a lifting apparatus.

8. With respect to claim 1, the Examiner asserts that Lighthipe discloses all of the elements of claim 1 except for the central exertion member including a top surface having one sloped portion for each lifting arm, the top surface of each sloped portion being downwardly inclined from the center of the exertion member and below the upper ends of the respective lifting arms. The Examiner refers to Willis to disclose this feature.

Applicant respectfully submits that the Examiner has failed to make a *prima facie* case of obviousness created by the cited combination of Lighthipe and Willis because there is no reasonable expectation of success. *See* MPEP § 2143.02.

The design of Lighthipe requires lever arms (FIG. 2, lever arms 13) that are pivotally connected 28 to spaced links 26. The lever arms 13 and spaced links 26 of Lighthipe are not the same as the lifting arms 50 of Applicant's invention or the jaws 70 of Willis. The lever arms 13 and spaced links 28 are separate members, not lifting arms

50 with fixed geometries, as required by the specification (see, for example, paragraph [0027]). Pivotally connected 26 lever arms 13 and spaced links 28 will not work with an exertion member, and the design of Lighthipe cannot accommodate an exertion member. Therefore, there can be no reasonable expectation of success in supplementing the grapple with latch of Lighthipe with the cam body 50 of Willis.

Further, there is no suggestion or motivation to combine the references. MPEP § 2143.01. The principle of operation of Lighthipe, which is based on pivotal connections as discussed above, would be changed by any modification based on Willis.

Accordingly, claim 1 is nonobvious over Lighthipe in view of Willis.

9. With respect to claims 5 and 6, the load bearing means of Lighthipe (FIG. 2, ring 24) is not mounted to the frame (identified by the Examiner as beam 11), but rather is mounted to a cross bar 21, which is independent of the beam 11 and tower members 19. Latch assembly 30, which may releasably engage a bar 37 on the beam 11, is also not mounted to the frame/beam 11. Because in Lighthipe the load bearing means is not connected to the frame, and no such element is present in Willis, this element of claims 5 and 6 is not taught, and these claims are nonobvious.

Further, in claim 6 there is no horizontal member mounted to the upper ends of vertical members. In addition, the horizontal cross bar 21 of Lighthipe merely slidably engages the tower members 19, and is not mounted to the tower members 19 (see paragraph [0027] for the definition of “mounted” in Applicant’s specification). Because these elements are missing from both Lighthipe and Willis, this element of claims 5 and 6 is not taught, and these claims are nonobvious.

Claims 5 depends from allowable claim 1, including all of the limitations therein, and is therefore also allowable. Claim 6 depends from allowable claims 1 and 5, including all of the limitations therein, and is therefore also allowable.

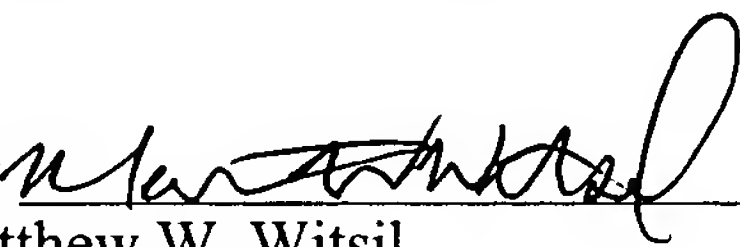
10. With respect to claim 17, the brackets 15 of Lighthipe are not guide members as asserted by the Examiner. Guide members 44 of Applicant's invention (FIGS. 1 and 4) are attached to the frame, and position the apparatus relative to the article to be lifted. In Lighthipe "[t]he lever arms 13 are each provided at their lower ends with a bracket 15 . . . for engagement with the drum" Col. 2, lines 12-17. The Lighthipe brackets 15 are on the ends of the lever arms 13, not mounted to the frame, and do not guide the position of the apparatus, but contact the article for lifting. Because this element is missing from both Lighthipe and Willis, this element of claim 17 is not taught, and this claim is nonobvious. Claim 17 depends from allowable claim 1, including all of the limitations therein, and is therefore also allowable.

For the foregoing reasons, Applicant respectfully submits that the apparatus and methods claimed in the present application are neither anticipated nor fairly taught or suggested by any of the references cited by the Examiner, either alone or in any reasonable combination suggested by the prior art. Reconsideration and withdrawal of the objections (addressed by amendment) and rejections, and allowance of claims 1-17 and 27-29, at an early date are respectfully requested, along with previously allowed claims 18-26.

If the Examiner has any questions about the present Amendment or anticipates finally rejecting any claim of the present application, a telephone interview is requested.

Respectfully submitted,

Date: 1 February 2006

By: 
Matthew W. Witsil
Registration No. 47,183
Moore & Van Allen PLLC
Attorney for Applicant
430 Davis Drive, P.O. Box 13706
Research Triangle Park, NC 27709
(919) 286-8000 (telephone)
(919) 286-8199 (facsimile)